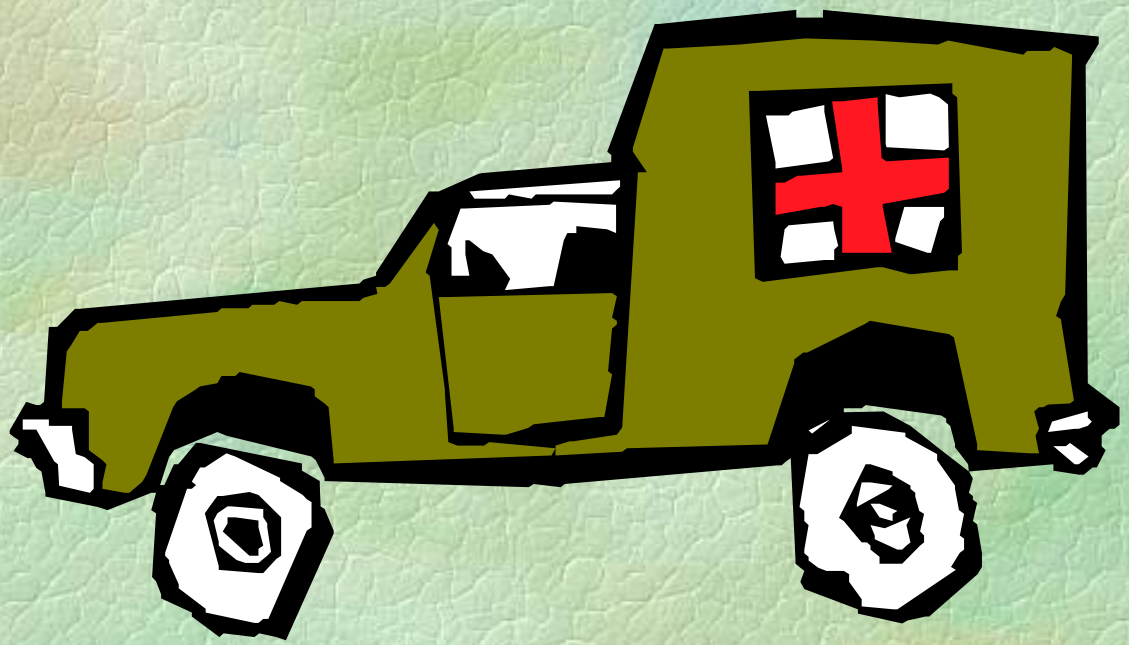
# DENTAL FIELD EQUIPMENT INVENTORIES AND LOAD PLANS



# Terminal Learning Objective

**Assemble, perform PMCS, inventory, disassemble, and make appropriate load plans for the selected field dental equipment IAW cited references.**

# Enabling Learning Objectives

a. From a list, select the critical preventive maintenance procedures pertaining to field dental equipment.

b. From a list, select four considerations for storage of field dental equipment IAW Local FSOP and Manufacturers

c. From a list, select the three categories of inventories and the supporting information for each category.

d. From a list, select the proper procedures for making a load plan IAW cited references.

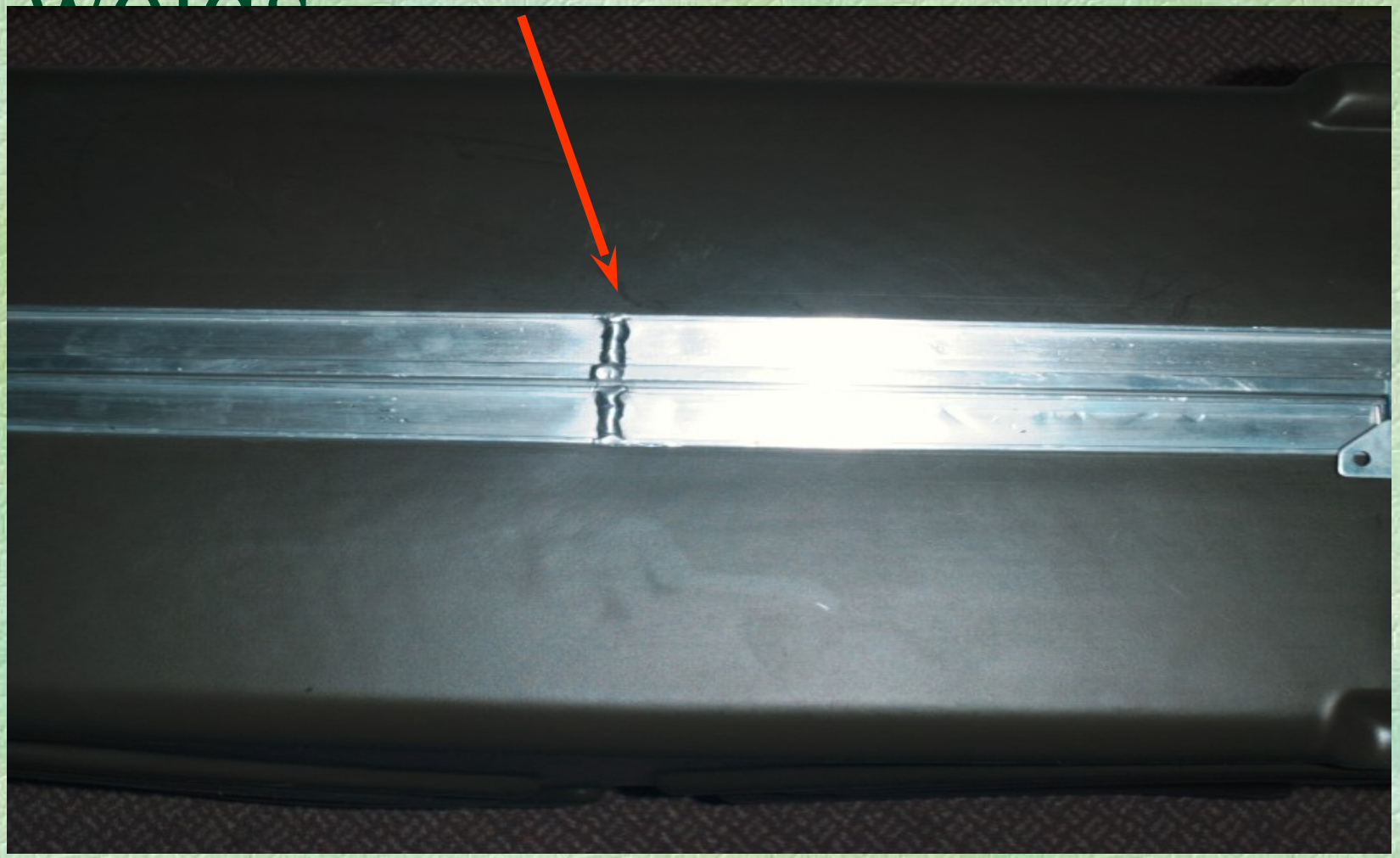
e. Discuss examples of load plans as shown in Local FSOP.

# Compressor/Dehydrator

**This unit supplies compressed air, which is free of oil, moisture, and articulate matter to operate a dental unit Porta-Cart (ADEC).**

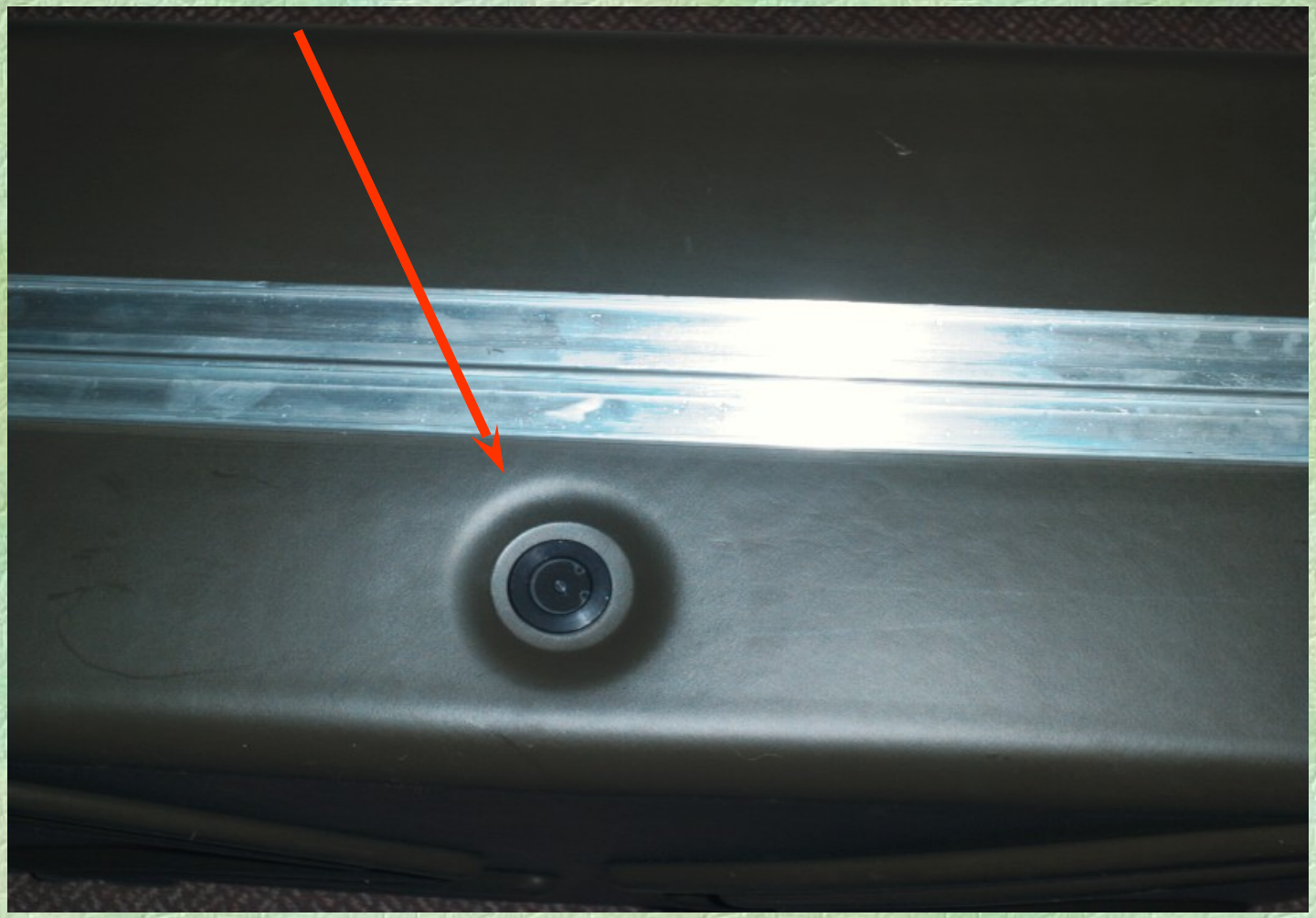
# Compressor/Dehydrator Critical Preventive Maintenance

# Always match up the welds



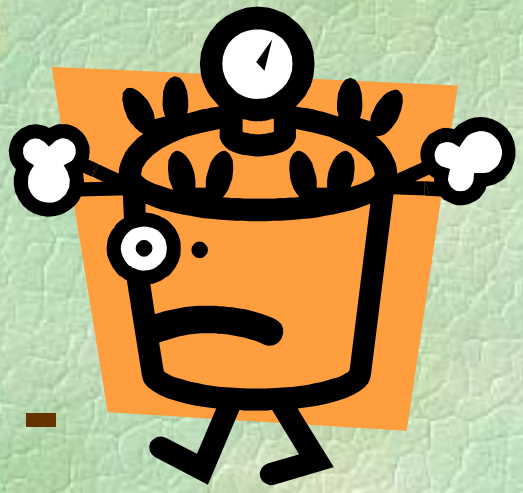
**Install no greater than 20 feet from point of usage- protect from natural elements.**

# Pressure Relief Valve



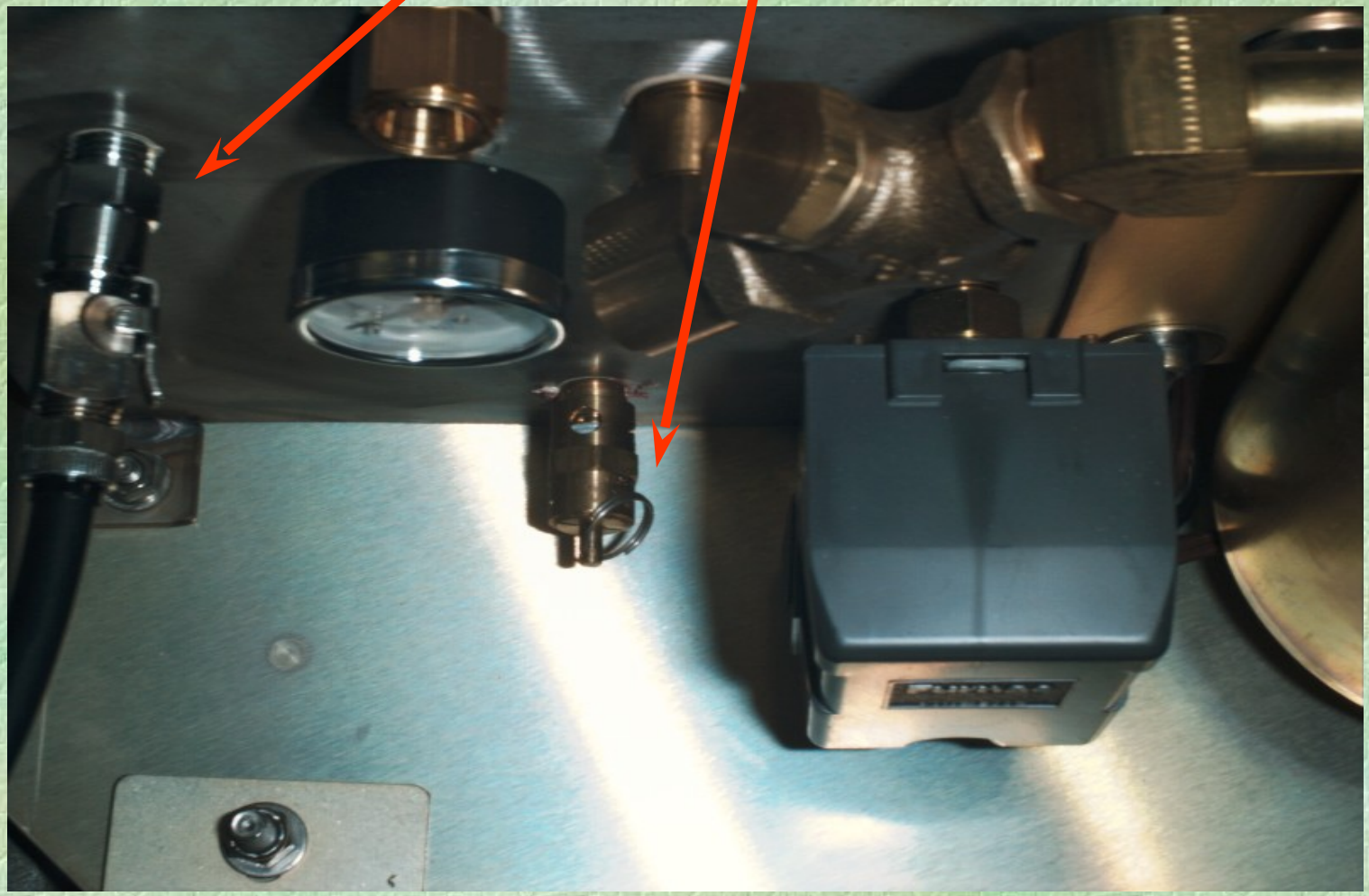
- **Prevent accumulation of water in transit case**

- **Open drain valve on air storage tank - ensure there is no pressure contained within**



- **Close drain valve**

# Hose connected - pressure relief valve



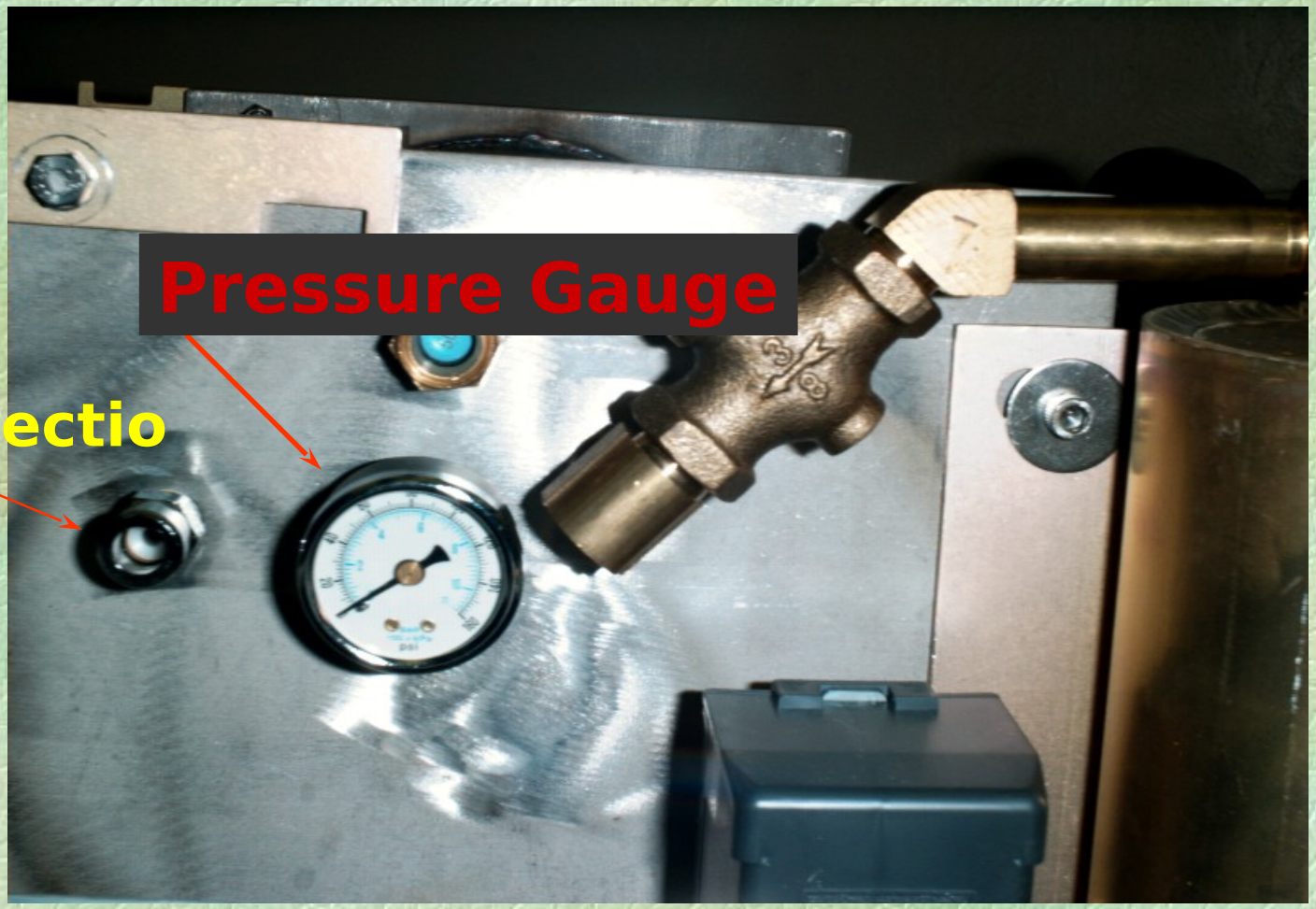
# Switch

**Visually inspect compressor/dehydrator for any obvious damage to hoses, tubes, cables, etc.**

**Attach appropriate length hose from compressor to Porta-cart (hose not to exceed 20-feet in length)**

**Connect power cable to 115 volt, 60 Hz power source**

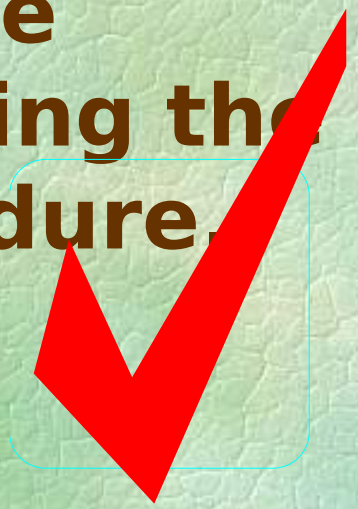
# Compressor connections

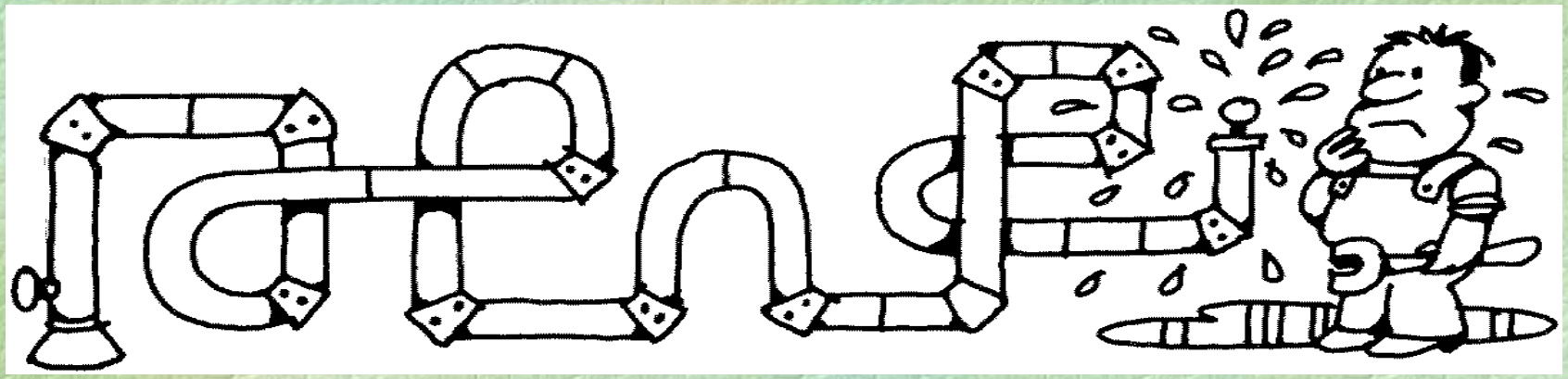


# Compressor w/cover in use

**Do not restrict the flow of air through the intake silencer (muffler).**

**Do not draw any air from the compressor/dehydrator during the operational checkout procedure.**





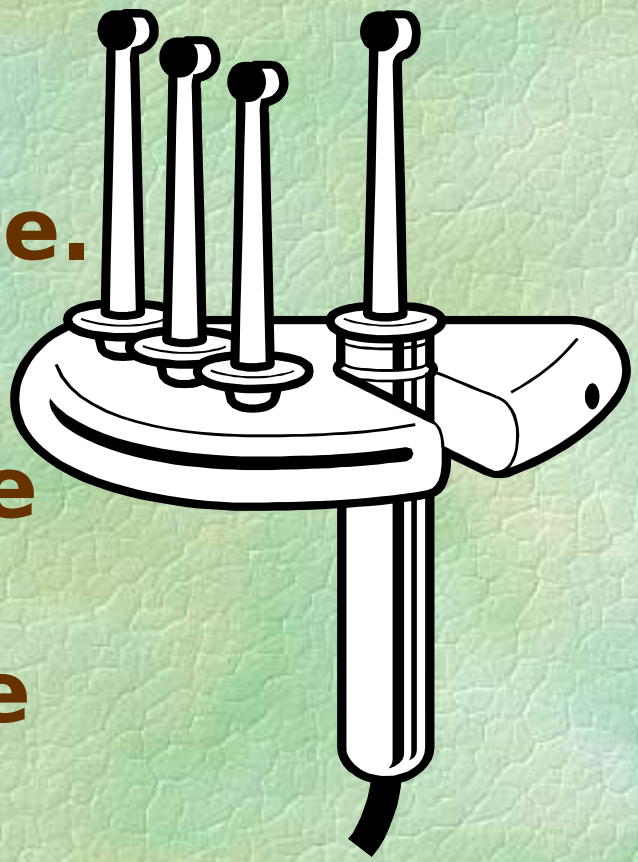
**If during turn-off, water is drained from storage tank, and compressor over loads - discontinue use.**

**DO NOT**

**use any type of liquid cleaner or solvent to clean the intake silencer (muffler).**

# Dental Unit Porta-Cart

**This self-contained mobile dental unit is designed for field or permanent facility use.**



**The entire unit can be quickly assembled/ disassembled for safe transportation and storage.**

# Port-a Cart

# Critical Preventive Maintenance

# Match up case halves

# Case pressure relief valve

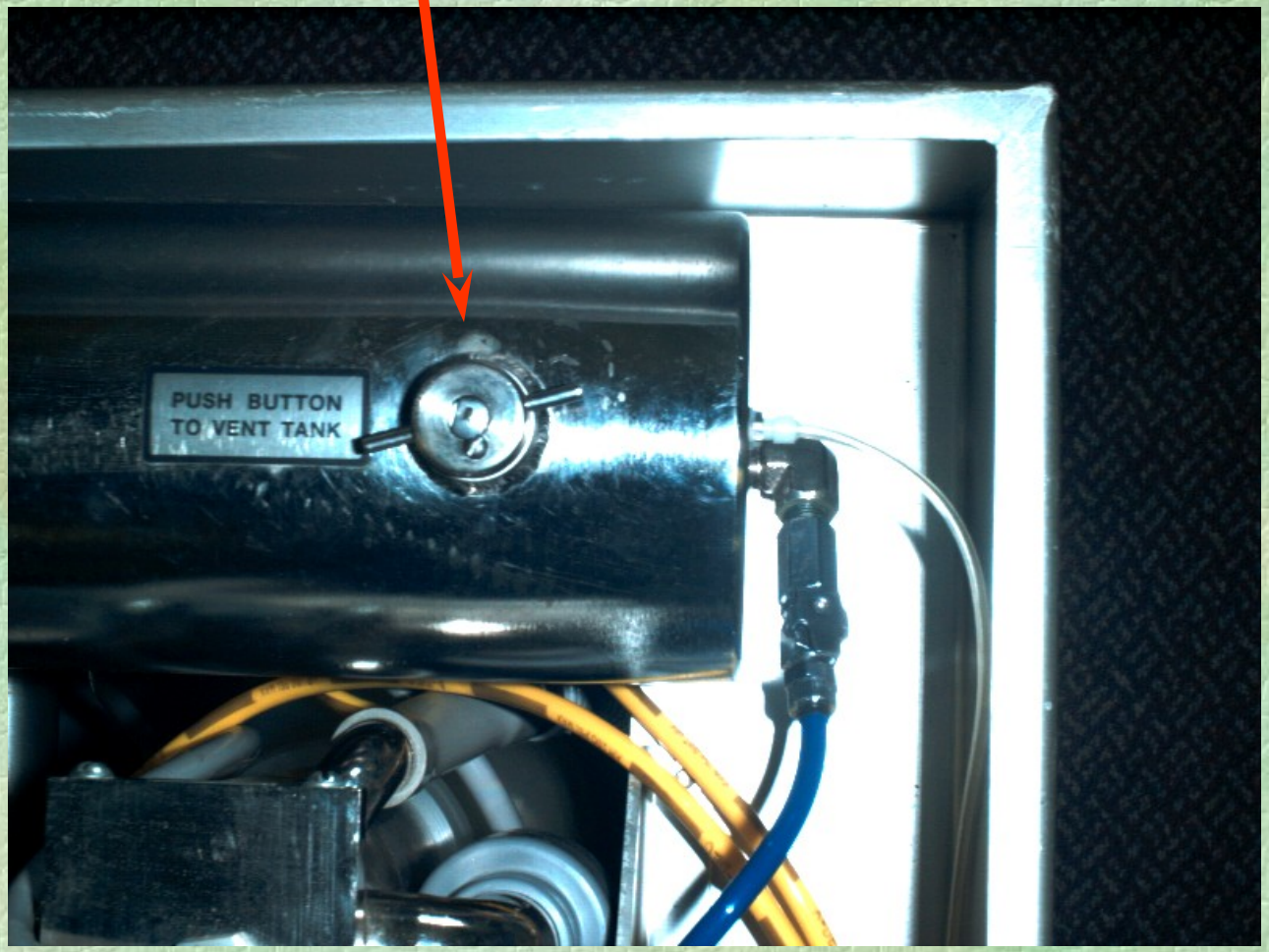
# Front View of Operating Unit

Check for obvious external damage, such as cracks or dents to carrying case.

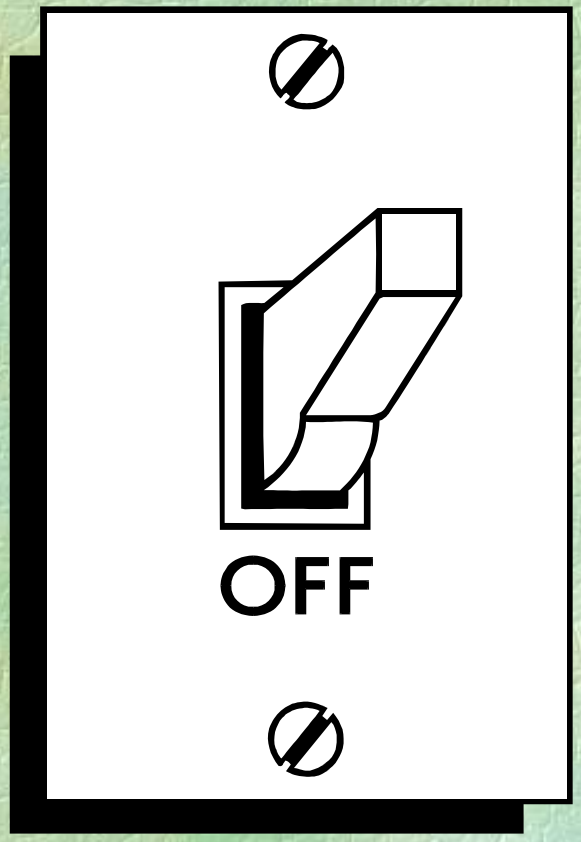
Check for leakage after connecting all air and water hoses and filling the water storage tank.

Check the airflow pressure to the hand piece by depressing the rheostat.

# Air Tank Vent



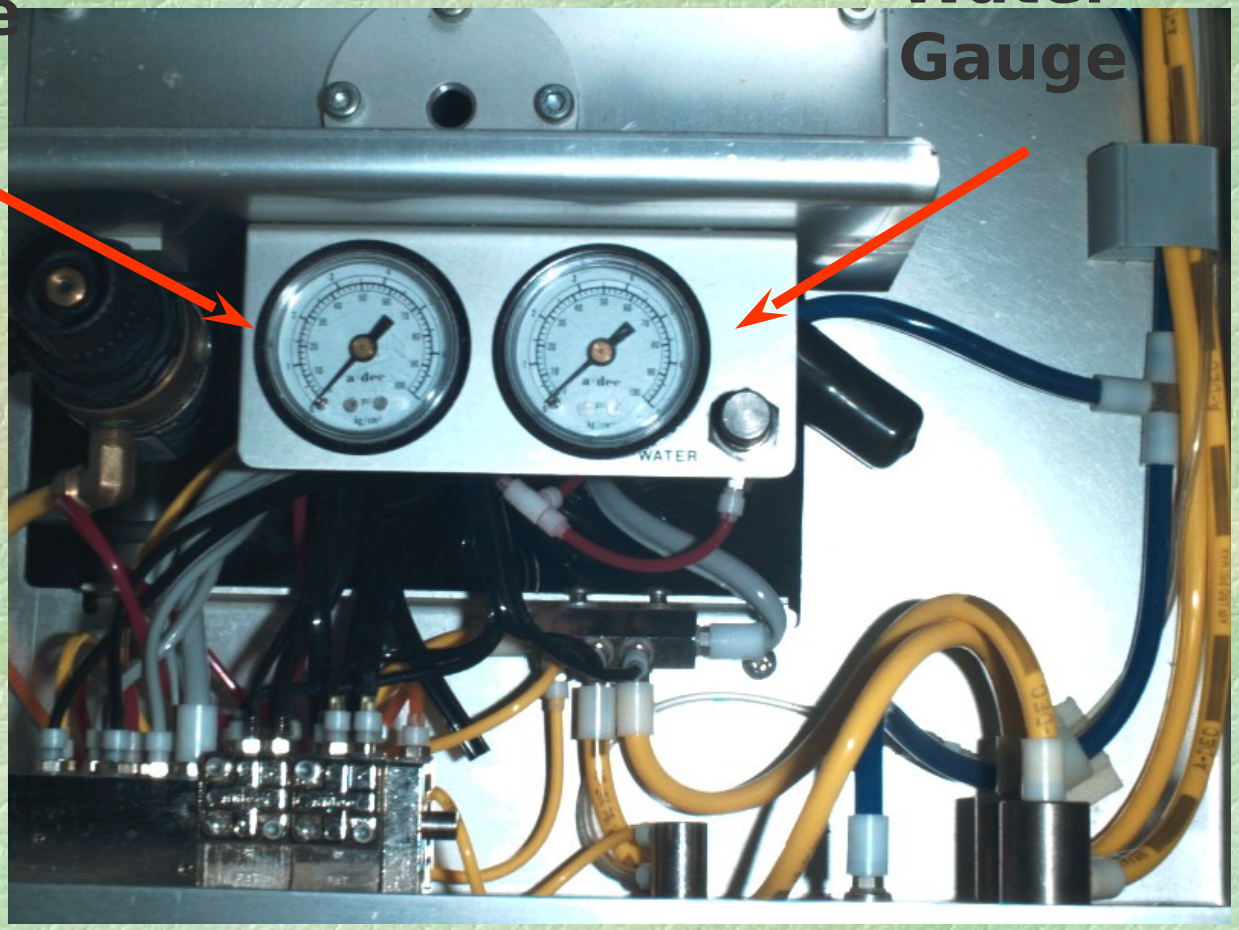
**Air supply should be shut off or disconnected - water pressure toggle switch placed in the OFF position whenever Porta-cart is unattended or not in use.**



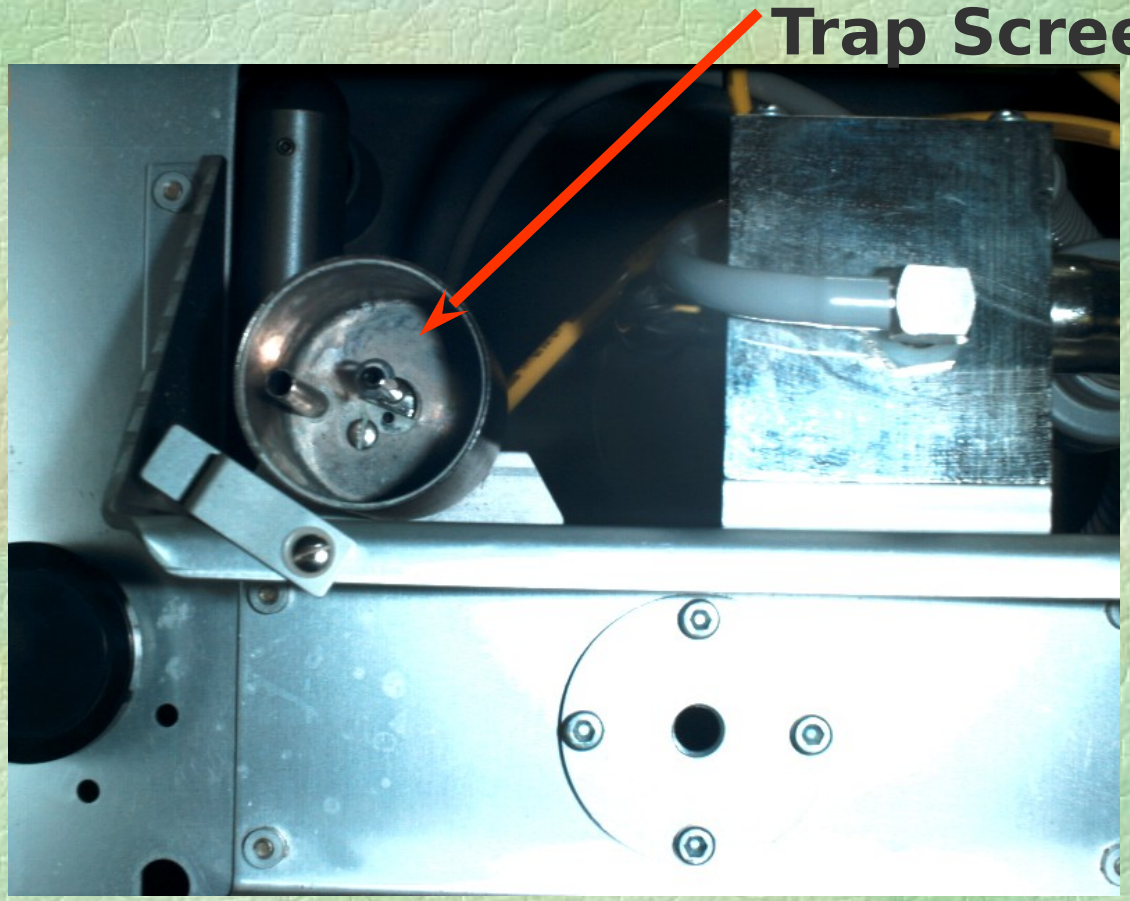
# Inside Top View

**Air Gauge**

**Water Gauge**



# Bottom View



# Unit Ready for Operation

**Dental Field X-Ray Unit -**

**The Semens® field dental x-ray unit is a small, lightweight, portable apparatus, although there are other brands. It provides intraoral radiographs for use in a field environment**

# Ready for operation !!

# X-Ray Unit

# Critical Preventive Maintenance

1. Check for obvious external damage to the container.

# WARNING

**To prevent accidental opening of spring-loaded scissors extension arm, do not remove the safety strap completely unless the arm is fully engaged in the coupling. Removal of this strap could cause damage to the arm or injury to the operator.**

# CAUTION: Be careful with arm

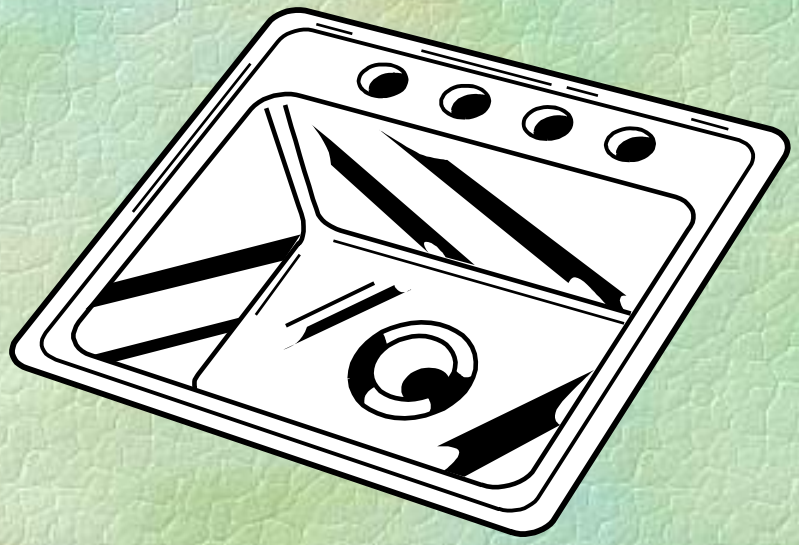
2. Check all working parts for obvious damage.

3. Perform a power supply line adequacy test as outlined in the manufacturer's instructions.

4. Check radiation warning light and acoustic buzzer for proper functioning.

5. Make sure the radiation exposure is interrupted by depressing and releasing the exposure button.

# Field Surgical Sink



**The sink unit consist of a collapsible, portable scrub sink capable of delivering either electrically heated or unheated water as desired.**

**The purpose of the sink unit is for the use of medical personnel in a field environment . The sink is also used for scrubbing instruments.**

# Field Surgical Sink

## Critical Preventive Maintenance

# Check all Contents for Damage

1. Check for obvious damage to the outer container.

2. Do not attempt to operate the sink unit without adequate water supply.

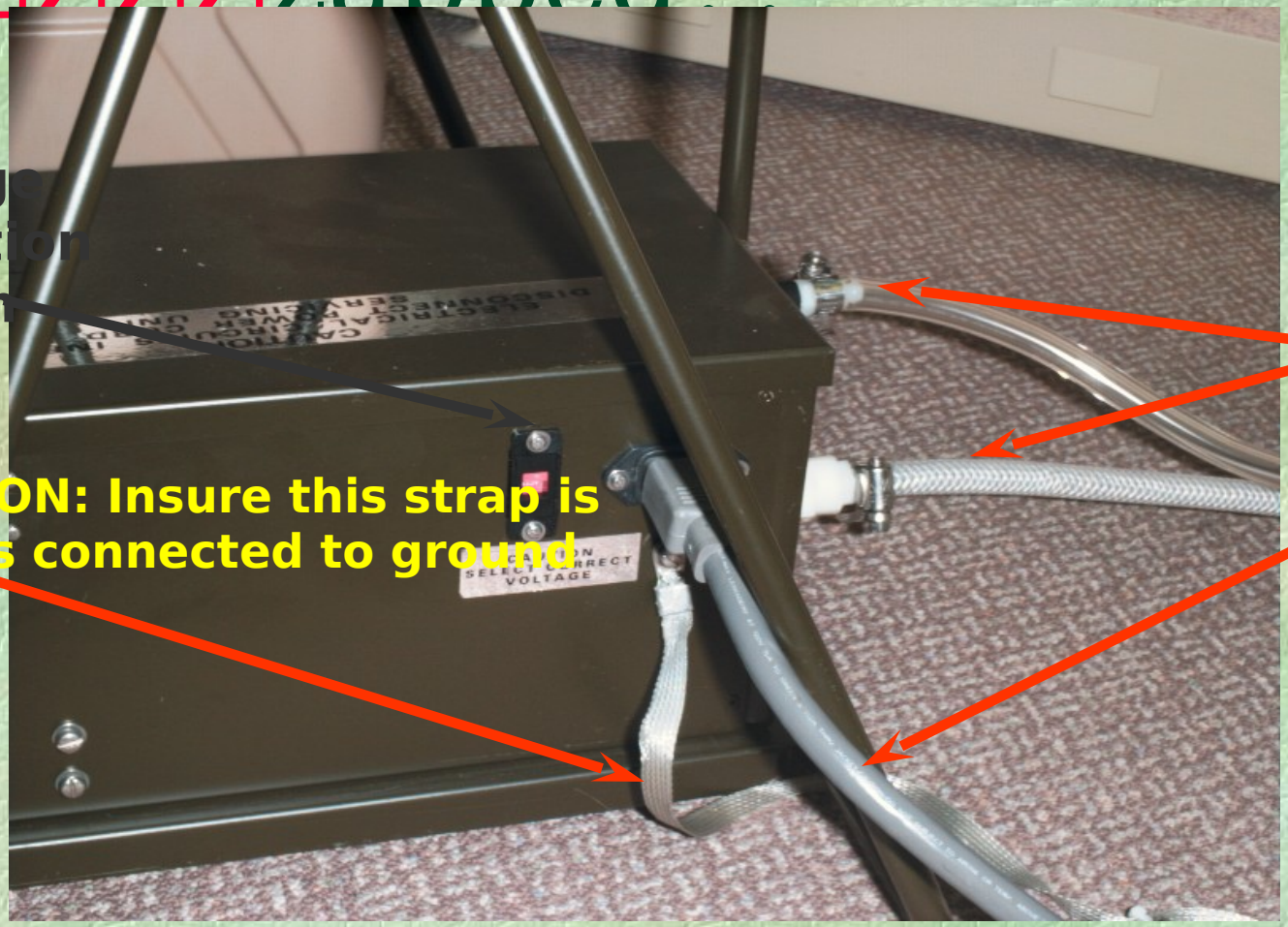
3. The water supply must be connected prior to any pump operational checks.

4. Check all hoses for any cracks, tears, or any obvious damage, which could result in leakage.

5. Connect the sink to an adequate power source, turn the pump on, and check

**Check the Ground Fault Circuit Interrupter (GFCI). It shuts off power to the pump and heater in the event of an electrical insulation failure. Press and hold the foot pedal while simultaneously pressing the Test button on the front of the control box.**

# Will YOU be ZZZZZzapped??



**The reset button should pop up and the pump and heater should turn off. If the pump and heater still operate after pushing the Test button, unplug the sink and call Medical Maintenance. Reset the GFCI by pressing the Reset button; it should stay depressed.**

# Ready for HOT water??

# Dental Field Chair & Stool

**The portable Field Module was designed to offer maximum comfort for patient and dentist. It is a lightweight, sturdy model chair top, base, and operator**

**The entire module is housed in an airtight fiberglass container and can be quickly set up for use in locations away from established facilities. The chair provides seating for the patient, whereas the stool provides seating for the doctor during operating procedures. The Assistant would us a stool not included with this unit.**

# Dental Field Chair Critical Preventive Maintenance

# Note the stool part locations

a. Check for obvious damage to the outer container.

b. Check the chair and stool for cracks or tears in the material.

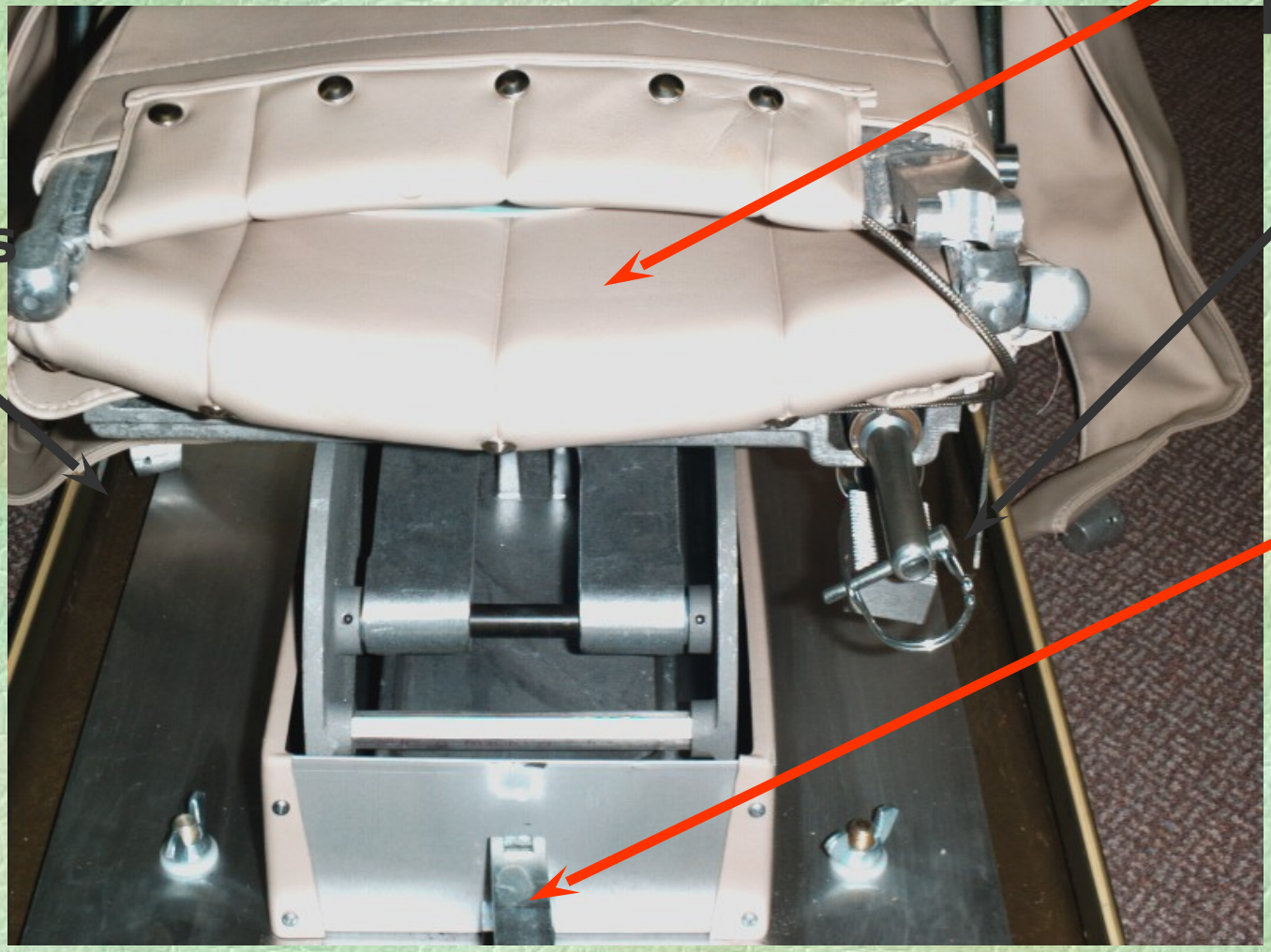
c. Check the base of the chair for leakage of hydraulic fluid, and for any screws that may have fallen out.

# Light Attachment Location

d. Check the foot control to see that the chair raises and lowers properly.

e. Check for any obvious bends or breaks in the frame, from where the chair may have been damaged from being forced back into its container.

# Things to pay attention to



**Four considerations for the storage of Field Dental Equipment are to be:**

**a. Inventoried**

**b. Cleaned**

**c. Serviceable**

**d. Properly labeled**

# NOTE

**Time of inventory is based on your unit's requirement/METL, unit's location, and location of your storage site.**

**Mission considerations will determine the time requirements for individual sections' inventory as well as for the whole unit. These considerations are:**

**a. Amount of space for equipment.**

**b . Amount of equipment needed for your team or**

c. Development

d. Loading/unloading

e. Destination (Rally Point)

# Categories of Inventories

a. Initial Inventory

1. Hand receipt for all equipment assigned

2. Component listing

3. Account for all equipment assigned

b. Follow-up Inventories

1. Check for shortages based on component listing

2. Schedule Medical Maintenance

(a) Check all equipment

(b) Order new equipment as needed

(c) Keep copy of all DD Form 2404

## c. Labeled Equipment Inventories

1. Done by Team/Sub Team
2. Keep a copy of the inventory list with each set
3. Organize all equipment by Team or Sub Team
   - (a) Makes it easy to conduct inventories
   - (b) Identifies shortages immediately

(c) Facilitates load up/unload time

(d) Organized

# Load Plans

Make a list of all equipment needed for the mission.

1. Summer list (IAW Local FSOP)

2. Winter list (IAW Local FSOP)

3. Combined list

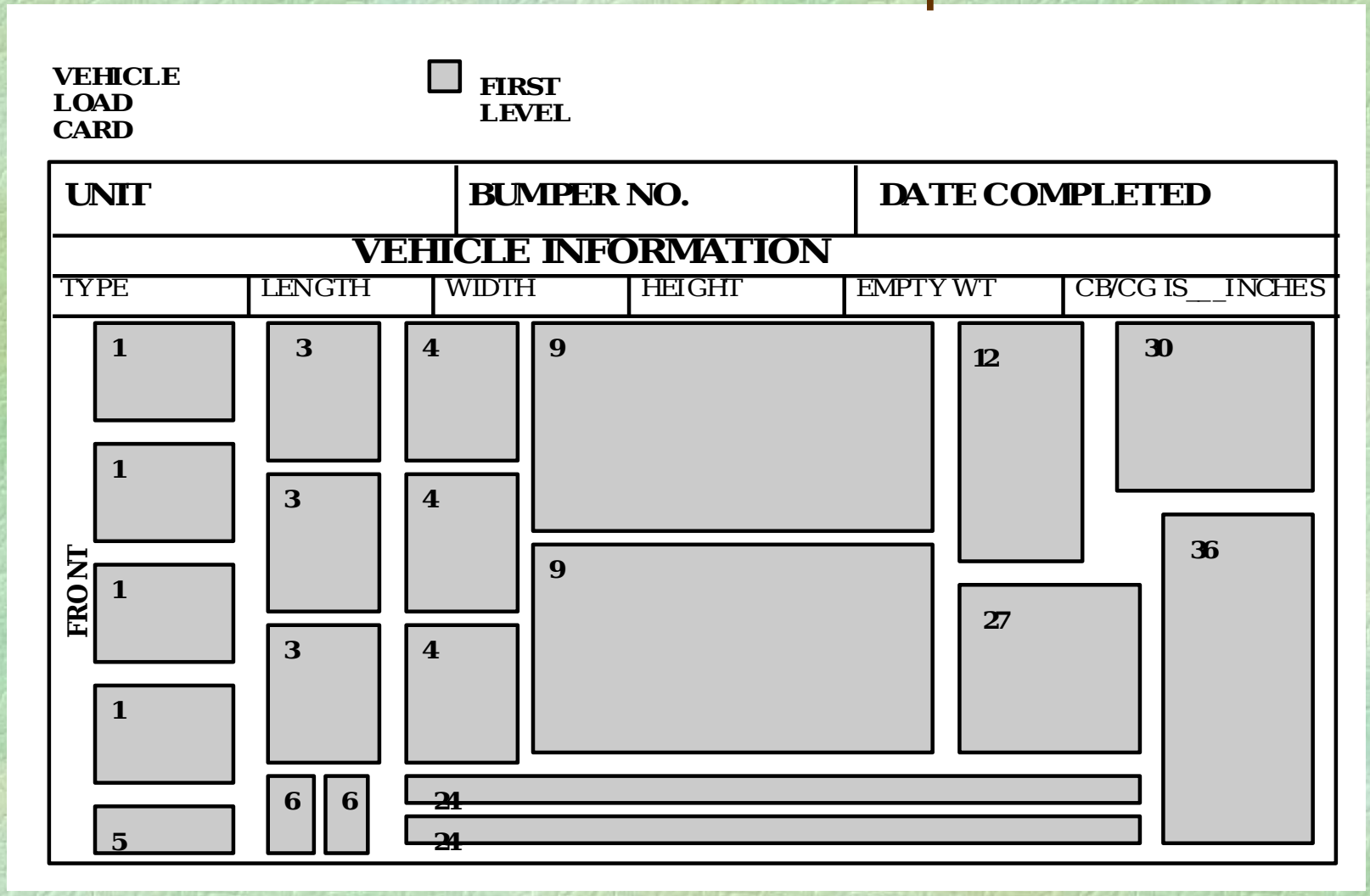
4. Identify the type of vehicle to be used to

# Making The Load Plan

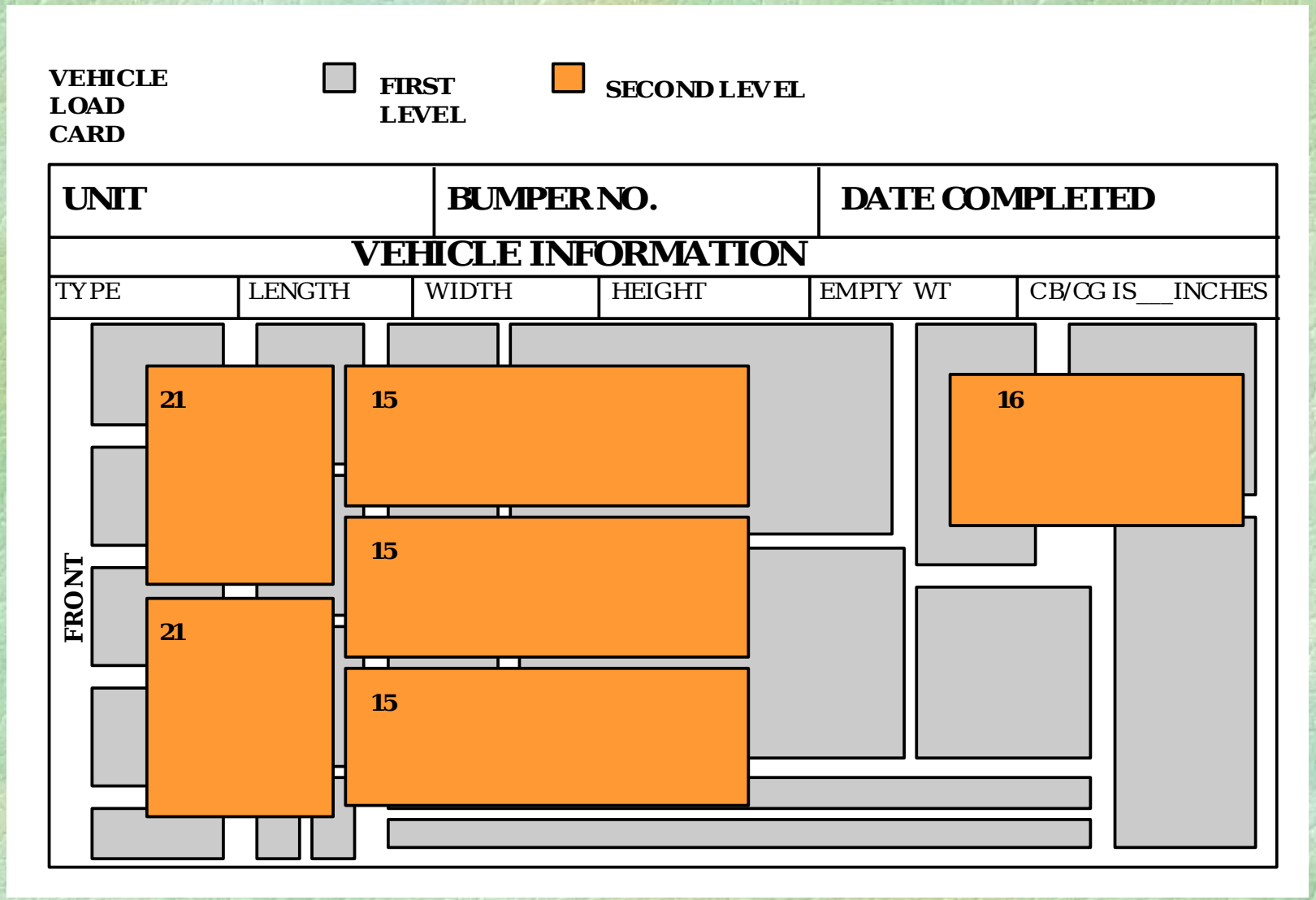
1. Load last what you will setup/need first when vehicle configuration allows.
2. Create load plan one layer at a time.

# Vehicle Load Card: First Level

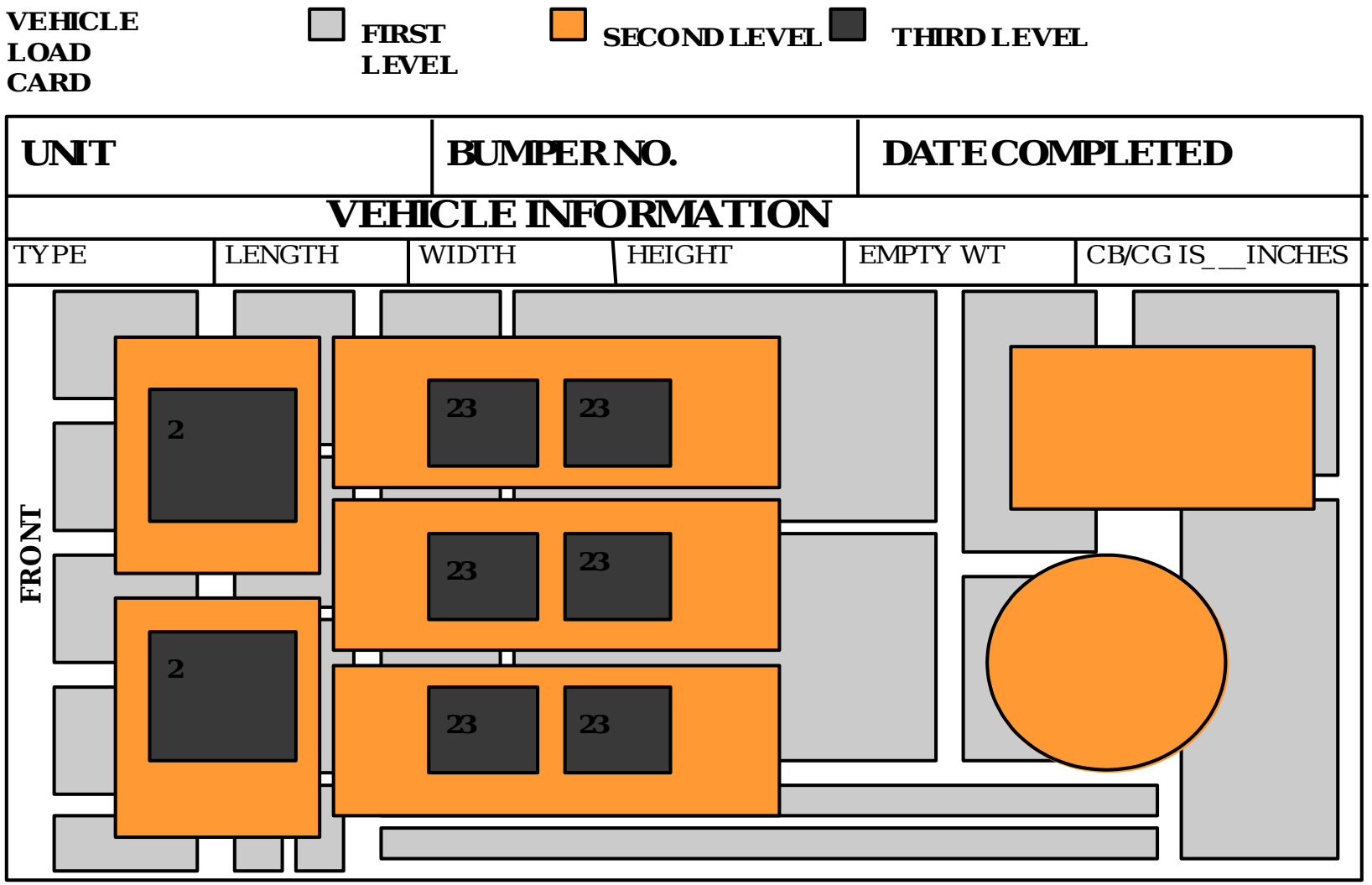
Packing Lists may be needed to show what the numbers represent



# Vehicle Load Card: 1st & 2nd levels

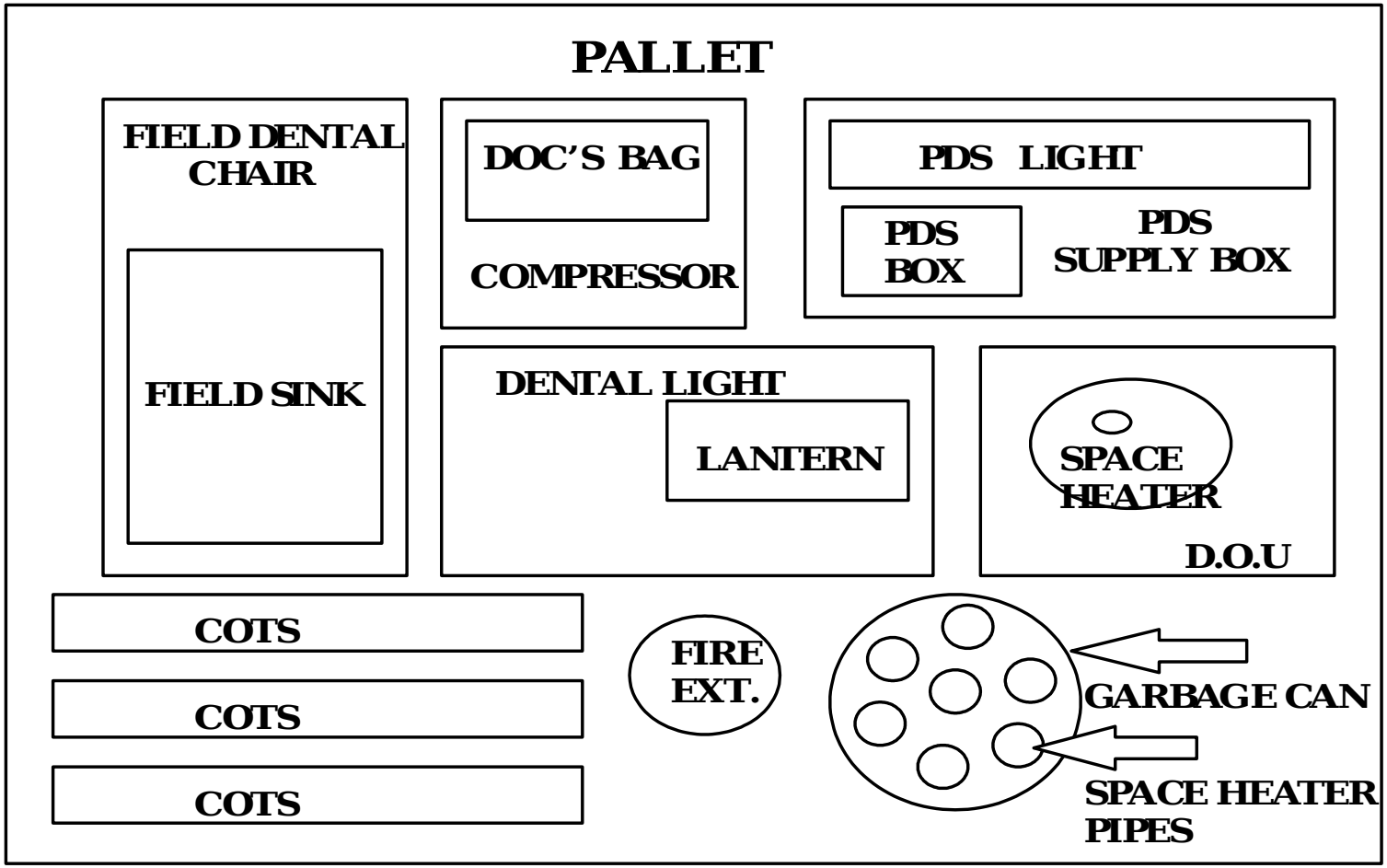


# Vehicle Load Card: 1st, 2nd & 3rd levels



3. Ensure you have someone making detailed notes/drawings as the load plan progresses. (You need to actually load the equipment to get an accurate load plan).

# Example of storage of field equipment and Load Plans.



4. Once your load plan is completed, you need to take the time and make a clear/neat copy of it.

5. Give a copy of load plan to the TOC.

# 3/4 ton trailer: 1st level

VEHICLE LOAD CARD

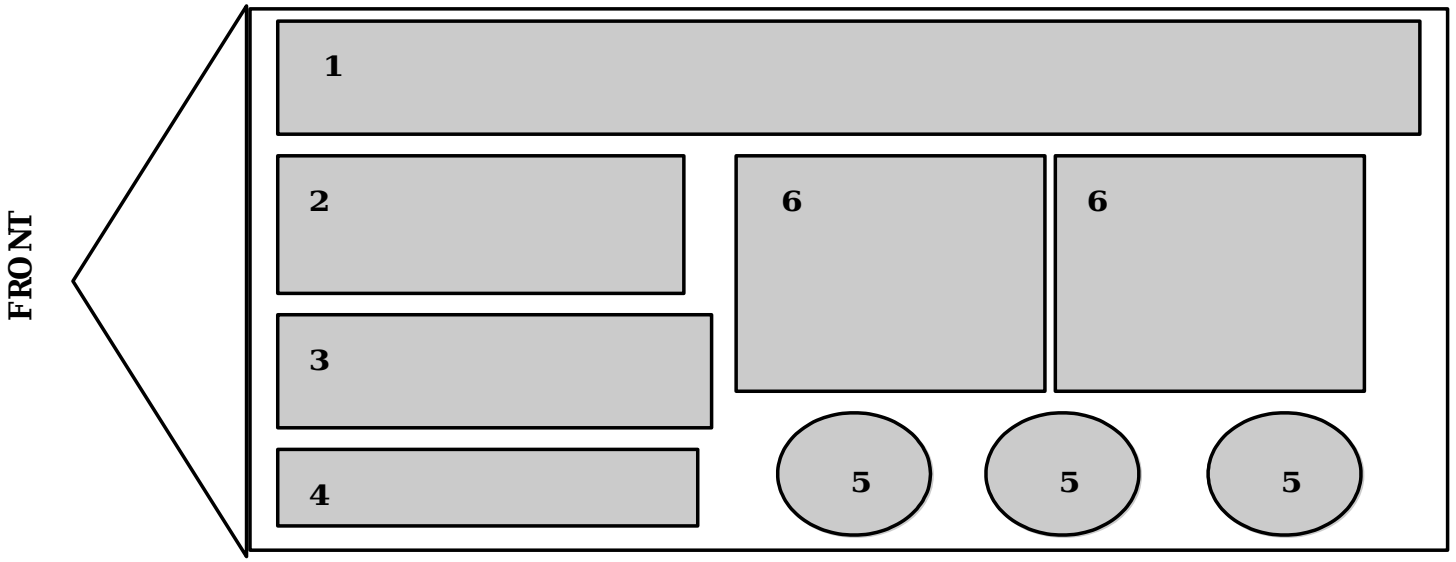
FIRST LEVEL

| UNIT | BUMPER NO. | DATE COMPLETED |
|---|---|---|

**VEHICLE INFORMATION**

| TYPE | LENGTH | WIDTH | HEIGHT | EMPTY WT | CB/CG IS__INCHES |
|---|---|---|---|---|---|
| 3/4 Trailer | | | | | |

**CARGO COMPARTMENT VIEW**



# 3/4 ton trailer: 1st & 2nd levels

VEHICLE LOAD CARD

FIRST LEVEL

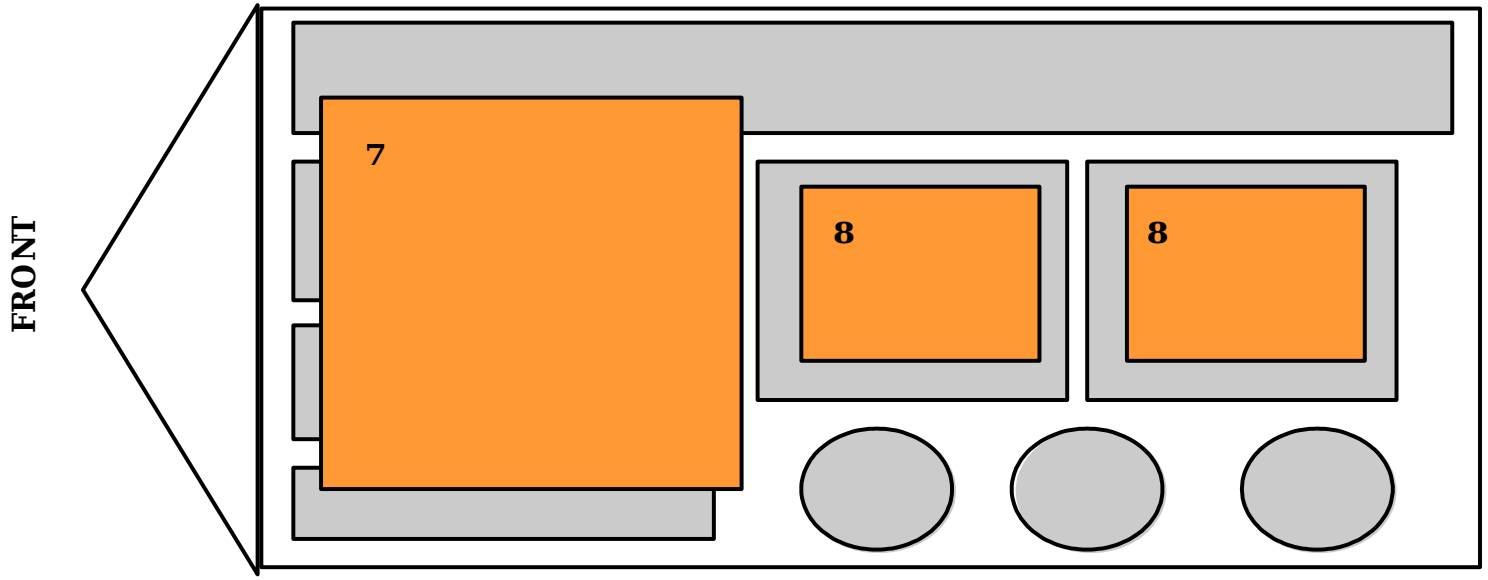
SECOND LEVEL

| UNIT | BUMPER NO. | DATE COMPLETED |
|---|---|---|

**VEHICLE INFORMATION**

| TYPE | LENGTH | WIDTH | HEIGHT | EMPTY WT | CB/CG IS___INCHES |
|---|---|---|---|---|---|
| 3/4 Trailer | | | | | |

**CARGO COMPARTMENT VIEW**



# 3/4 ton trailer: 1st, 2nd & 3rd Levels

VEHICLE LOAD CARD

FIRST LEVEL

SECOND LEVEL

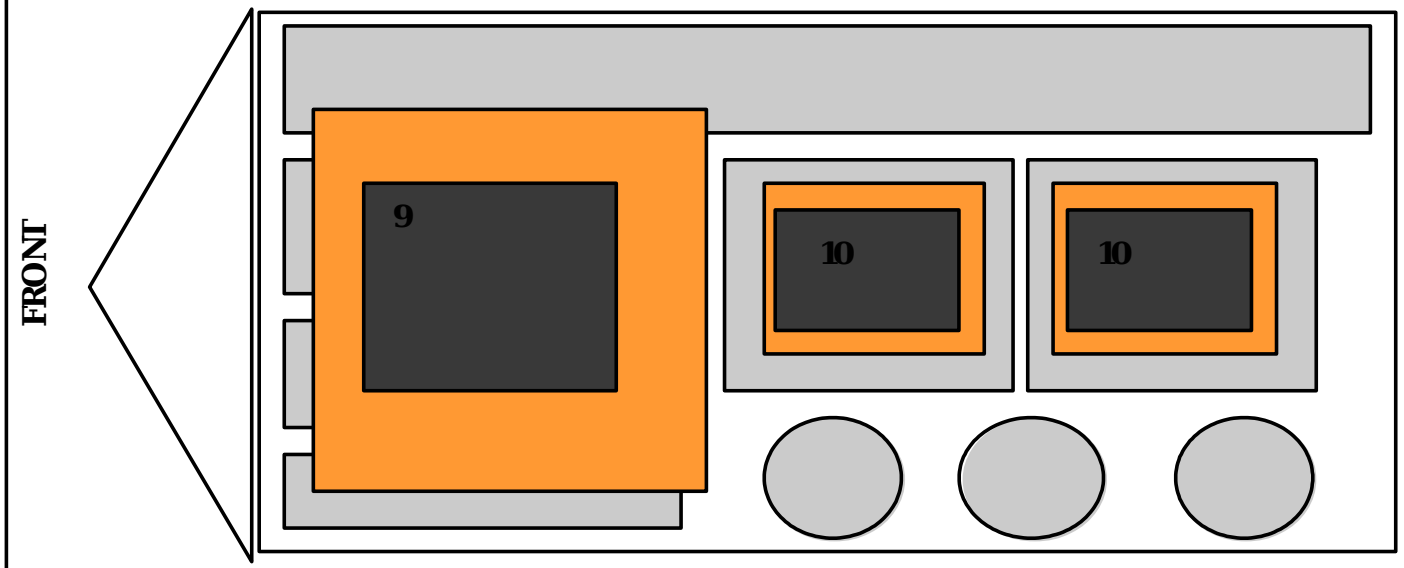
THIRD LEVEL

| UNIT | BUMPER NO. | DATE COMPLETED |
|---|---|---|

**VEHICLE INFORMATION**

| TYPE | LENGTH | WIDTH | HEIGHT | EMPTY WT | CB/CG IS__INCHES |
|---|---|---|---|---|---|
| 3/4 Trailer | | | | | |

**CARGO COMPARTMENT VIEW**



**A separate load plan should be maintained for air movement involving hazardous cargo.**

# Summary

1. Critical preventive maintenance procedures pertaining to the compressor/dehydrator, Porta Cart, field dental x-ray, field surgical sink, dental field chair and stool.

2. Assembly and disassembly of the dental

3. Four considerations for storage of field dental equipment.

4. Three categories of inventories.

5. Load plan procedures.

# Questions???